

mothers of preterm infants to offer support in the postpartum period.

### 1292 DIFFERENCES IN POSTPARTUM POLICY AFTER MATERNAL USE OF SELECTIVE SEROTONIN-REUPTAKE INHIBITORS DURING PREGNANCY

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AJE Wakker-Deelen, AVN Schmetz, AC de Mol. *Department of Pediatrics, Albert Schweitzer Hospital, Dordrecht, The Netherlands*

**Background and Aim** ±10% of women has a depression during pregnancy and selective serotonin reuptake inhibitors (SSRI) are frequently used. After the use of SSRI's approximately 30% of neonates show adverse effects. We studied different policies in the Netherlands in term neonates after maternal SSRI use and findings of standard 48-hour monitor observation and glucose testing.

**Methods** A questionnaire about local policy in neonates after maternal SSRI use was performed in all Dutch hospitals. Next to this we describe the occurrence of incidents and hypoglycemia in a 5.5-years cohort of term neonates (n=138), in which standard monitor observation and glucose testing was performed.

**Results** The questionnaire response rate was 79%. Standard observation is conducted in 96% of the hospitals, 77% on the maternity ward and 23% on the neonatology ward, using a monitor. The majority (n=53, 73%) observes neonates for 48 hours (range 12–72 hours). Standard glucose testing is performed in 12% of hospitals. Ambulatory follow-up is performed in 30% of hospitals. Our cohort study showed that if no incidents occurred during the first 24 hours of observation, no incidents will occur thereafter. Glucoses were below cut off value in 12% mainly at 1 hour after birth, resolving with oral feeding.

**Conclusions** There are many differences in postnatal care for neonates born after maternal SSRI use. Based on our cohort study it seems unnecessary to prolong monitor observation after 24 hours if no incidents occurred. Standard glucose testing should not be performed.

### 1293 UMBILICAL ARTERY INTIMA-MEDIA AND WALL THICKNESS IN INFANTS OF DIABETIC MOTHERS AND ITS RELATION TO MATERNAL HYPERGLYCEMIA

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<sup>1</sup>YU Sarikabadayi, <sup>1</sup>O Aydemir, <sup>1</sup>HG Kanmaz, <sup>1</sup>C Aydemir, <sup>1</sup>SS Oguz, <sup>1</sup>O Erdeve, <sup>2</sup>EG Yapar Eyi, <sup>3</sup>S Zergeroglu, <sup>1</sup>U Dilmen. *<sup>1</sup>Department of Neonatology, Zekai Tahir Burak Maternity Teaching Hospital; <sup>2</sup>Department of Perinatology, Zekai Tahir Burak Maternity Teaching Hospital; <sup>3</sup>Department of Pathology, Zekai Tahir Burak Maternity Teaching Hospital, Ankara, Turkey*

**Background** Children who are large for gestational age at birth and exposed to an intrauterine environment of either diabetes or maternal obesity are at increased risk of developing metabolic syndrome. This can be explained by exposure to high glucose and insulin levels in utero causing altered fetal adaptation and changes in normal fetal programming.

**Objectives** The aim of the study was to evaluate preclinical atherosclerosis begins in utero.

**Methods** We measured the umbilical artery wall thickness (ruWT) in the third trimester by obstetric ultrasound and umbilical artery intima media thickness (uIMT) in pathologic specimens of the umbilical cords obtained shortly after delivery and we investigated the relation between the these measurements and serum insulin, c-peptide level in cord blood and homeostasis model assessment of insulin resistance (HOMA-IR) in infants of diabetic mother (IDM). Study group divided into two groups as; large for gestational age (LGA)/IDM group, appropriate for gestational age (AGA)/IDM group and compared with control group.

**Results** The LGA/IDM group had significantly higher insulin (p<0.001), c-peptides (p=0.018) and HOMA-IR levels (p<0.001) compared to AGA/IDM group and controls. LGA/IDM group had significantly higher ruWT(p=0.013) and uIMT (p<0.001) values compared to AGA/IDM group and controls. LGA/IDM group has increased umbilical artery intima-media and wall thickness which correlates with severity of maternal hyperglycemia.

**Conclusions** Measurement of ruWT in third trimester is feasible, reproducible and strongly correlated with pathological measurements.

### 1294 IS MATERNAL DEPRESSIVE SYMPTOMATOLOGY EFFECTIVE ON EXCLUSIVE BREASTFEEDING DURING POSTPARTUM 6 WEEKS?

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<sup>1</sup>A Annagür, <sup>2</sup>B Burçak Annagür, <sup>3</sup>A Şahin, <sup>3</sup>R Örs, <sup>4</sup>F Kara. *<sup>1</sup>Selçuk University, Selçuklu Medical Faculty, Department of Neonatology; <sup>2</sup>Selçuk University, Selçuklu Medical Faculty; <sup>3</sup>Konya University, Meram Medical Faculty, Department of Neonatology; <sup>4</sup>Selçuk University, Selçuklu Medical Faculty, Department of Public Health, Konya, Turkey*

**Aim** The aim of this prospective study was to examine the relationship between exclusive breastfeeding and postpartum depressive symptomatology. Our hypothesis was that mothers with depressive symptoms initially, fail exclusive breastfeeding.

**Methods** One hundred ninety seven mothers attended the study. The participants were interviewed two times. The first visit was within the first 48 hours after birth. The Edinburgh Postnatal Depression Scale (EPDS) was completed by the participants. The second interview performed 6 weeks. Participants answered methods of breastfeeding for 6 weeks, any methodological problems and nipple pain. EPDS was completed by the participants in 6 weeks. Newborns were term infant.

**Results** All the participants divided into two groups as exclusive breastfeeding and mix-feeding (partial breastfeeding and/or bottle feeding). Both groups were compared in terms of features, such as mode of delivery, parity, prevalence of depressive symptomatology (at 48-h and 6 wk) and delayed onset of lactation within first 48. Statistical significance was found for only two variables which delayed onset of lactation within first 48-h and gestational age.

**Discussion** Contrary to our expectation, effect of higher maternal depressive symptomatology was not demonstrated on exclusive breastfeeding during 6 weeks after delivery. However, the important finding of this study that delayed onset of nutrition within the first 48 hours affects negatively exclusive breastfeeding during 6 weeks after delivery.

**Conclusion** Clinicians especially should pay attention that lactation difficulty during the first week postpartum. Early lactation difficulties are associated with greater risk of early termination of breastfeeding and lower breastfeeding success.

### 1295 CORD BLOOD THEOPHYLLINE LEVELS AND RESPIRATORY MORBIDITIES IN PRETERM INFANTS

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TH Çelik, A Korkmaz, Ş Yiğit, M Yurdakök. *Department of Pediatrics, Division of Neonatology, Hacettepe University, Faculty of Medicine, Ankara, Turkey*

**Background** Methylxantines such as caffeine and its metabolites, which are taken by pregnant women via daily foods, are completely transferred to the fetus through placenta. Caffeine has been shown to improve respiratory functions and decrease bronchopulmonary dysplasia in preterm infants. However respiratory effects of prenatal caffeine exposure are not known completely in newborn infants.

**Aim** We aimed to investigate whether there is a relationship between cord blood theophylline levels (which is a main caffeine

metabolite) and pulmonary morbidities in early neonatal period in premature infants.

**Method** This study was conducted in Hacettepe University Children's Hospital Neonatology Unit. Cord blood samples were obtained at birth from premature infants (gestational age < 37 wk) and theophylline levels were measured. Cord blood theophylline levels of infants with and without respiratory morbidities were compared.

**Results** A total of 60 infants were enrolled in the study. Early respiratory morbidities developed in 37 infants (Group 1, 61.6%) while no respiratory morbidities were observed in 23 infants (Group 2, 38.3%). Although mean cord blood theophylline levels were lower in Group 1 (0.21±0.18 µg/ml) than Group 2 (0.33±0.29 µg/ml), this difference was not statistically significant (p=0.156).

**Conclusion** Preterm infants with and without respiratory morbidities have similar cord blood theophylline levels. Prenatal exposure to theophylline does not seem to affect respiratory status in the early neonatal period. However cord blood theophylline levels were much lower than therapeutic serum levels in neonates. The effects of prenatal caffeine on neonatal respiratory status should be investigated in animal models.

1296

#### EPIDEMIOLOGICAL AND CHRONOLOGICAL PROFILE OF THE LOW BIRTH WEIGHT IN THE REGION OF MONASTIR (TUNISIA) BETWEEN 1995 AND 2008

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S El Mhamdi, I Bouanene, K Ben Salem, MS Soltani. *University of Monastir, Monastir, Tunisia*

In Tunisia, despite the activities of national programs of maternal and child health, low birth weight (LBW) remains common. The aim of this study is to draw up the epidemiological profile of the LBW in the region of Monastir and to study the chronological trends of the associated factors during a period of 14 years (1995–2008). We conducted a population study which interest 97.630 live births (from 26 to 43 weeks) in the public maternities of the region of Monastir. The mean's age of pregnant women was 28.7±5.5 years. Among them 14.2% were aged 35 and older and 40% were primipara. Newborns were in term in 94.7% of cases. Maternal age, prenatal care, twin pregnancies and fetal complications were the factors independently associated with the occurrence of LBW in term newborns. However, only prenatal care and twin pregnancies were independently associated to LBW in preterm newborns. During the fourteenth years of the study the parturient mean age and the frequency of preterm birth increased significantly (P<0.001) while the frequency of multiparty decreased significantly (P<0.001). We found that the risk factors of LBW (advanced age, multiparty, etc.) are still common in our country and require targeted interventions.

1297

#### A RANDOMIZED CLINICAL TRIAL OF THE USE OF ORAL GLUCOSE FOR PAIN RELIEF DURING RETINOPATHY OF PREMATURITY EXAMINATION (ROP)

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RS Procianny, M Costa, G Eckert, B Borges Fortes, J Fortes Filho, RC Silveira. *Universidade Federal do Rio Grande do Sul and Hospital de Clinicas de Porto Alegre, Porto Alegre, Brazil*

**Background** Ophthalmologic examination for ROP is a painful procedure. Pharmacological and non-pharmacological interventions have been proposed in order to reduce pain during eye examination.

**Purpose** To evaluate the use of oral 25% glucose solution to relief pain during ophthalmologic examinations for ROP.

**Methods** A masked randomized clinical trial with the use of 1 ml of oral 25% glucose solution once 2 minutes before the first

ophthalmologic examination was carried out from March 2008 to April 2010 comparing with a control group that did not receive oral glucose solution. Pain was evaluated by Neonatal Infant Pain Scale (NIPS) immediately before and immediately after the ophthalmologic examination in both groups.

**Results** 124 patients who were examined for the first time for ROP were included (70 in intervention and 54 in control groups). Prior to examination, mean NIPS scores were 0.8±0.8 and 1.2±1.2 (P=0.100) in newborns of intervention and control groups respectively, and after examination mean NIPS scores were 2.6±1.1 and 4.5±1.3 (P<0.001) in intervention and control groups respectively. The number of patients with pain prior the eye examination was one (1.4%) and 2 (3.7%) in intervention and control groups (P=0.580) respectively. After eye examination 11 patients with pain (NIPS≥4) in intervention group (15.7%) and 37 patients with pain (68.5%) in control group (P<0.001).

**Conclusions** One ml of oral 25% glucose solution given 2 minutes before the ophthalmologic examination for ROP is an effective measure for pain relief. (clinicaltrials.gov. NCT00648687).

1298

#### PREDICTIVE VALUE OF UMBILICAL CORD BLOOD BILIRUBIN LEVEL FOR SUBSEQUENT HYPERBILIRUBINEMIA IN ABO INCOMPATIBILITY

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<sup>1</sup>D Bhat, <sup>2</sup>M Purohit. <sup>1</sup>Dayanand Medical College, Ludhiana; <sup>2</sup>S.P.Medical College, Bikaner, India

**Objectives** To establish a correlation between umbilical cord blood bilirubin levels and the development of subsequent hyperbilirubinemia in healthy term newborn ABO incompatible infants of blood group "O" mothers.

**Subject & methods** One hundred consecutive healthy full term offsprings of ABO incompatible pregnancies and 30 controls resulting from O-O pregnancies were studied. Blood group and serum bilirubin estimations were carried out on cord blood and bilirubin estimation was further done at 36 hours of life.

**Results** Out of 100 cases in study group 33(33%) developed hyperbilirubinemia whereas only one (3.3%) out of 30 cases in control group developed hyperbilirubinemia. Majority of cases with hyperbilirubinemia i.e. 20 (60.6%) out of 33 cases, had cord bilirubin values between 2.5 to 2.99 mg/dl. Mean cord bilirubin values were significantly higher (2.27±U 0.76) in study group as compared to control group (1.55±0.33).

**Conclusion** It is concluded that in ABO incompatibility the cord bilirubin value ≥ 2.5 mg/dl can serve as a useful cutoff limit for the later development of hyperbilirubinemia.

1299

#### ARE WE UNDERTREATING HYPERBILIRUBINEMIA IN PRETERM INFANTS?

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A Kage. *Paediatrics, Leicester Royal Infirmary, Leicester, UK*

**Aim** To compare serum bilirubin level for exchange transfusion in pre-term infants (< 32 weeks) against standard guidelines.

**Methodology** Retrospective audit. Preterm infants (< 32 weeks) and Birth weight < 1500 gms included. Data collected through Clinical Work Station. Bilirubin levels plotted on the charts used on our neonatal unit and compared against standard charts. (from Robertson's textbook of Neonatology).

**Results** No infant received exchange transfusion. When the levels were plotted on standard guideline charts, there were 8 infants who should have received exchange transfusion based on birth weight and 16 infants who should have received exchange transfusion based on gestation.